

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:54 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1212 Const Calendar Day: 785 Date: 29-Jul-2014 Tuesday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather****Temperature** 7 AM 12 PM 4PM**Precipitation** **Condition** overcast early am, then clear, then partly cloudyWorking Day ☒ If no, explain:**Diary:**

Dispute

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:



ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

There is work in the field on setup of TR's 18 & 19. Crews at the Pier 7 warehouse are working an 8-hour shift 0600 through 1430. Working on the CCO operation today are Laborer Carlos (Pedro) Garcia (1130~1430) and Ironworker Foreman (temporary foreman for today) Jared Garrett (~0630~0730). The non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day are not covered by this diary. Note that several of ABF's ironworkers are starting a nightshift tonight for work on the cable security gate (CCO 378), so there are fewer ironworkers than normal at the Pier 7 warehouse area to handle the other operations on site. This affects the availability of ironworkers for the CCO 314 test rig operations. This nightshift work is anticipated to last the remainder of the week.

In the morning, the ironworker installs the test rods in the couplers at TR's 18 & 19. This is so that later in the morning when VGO starts work on the test rigs, the jacking rod will be in the appropriate location for installing strain gauges through handholes in the test rigs. The ironworker starts work at TR 18 where he installs the S1-A7 test rod. He finishes with TR 19 where he installs the S2-H6 test rod. The work starts after 0630 and is complete by 0730. Before threading the recently machined 8 TPI threads into the coupler, thread sealant (RectorSeal No. 5) is applied to the test rod threads – in some previous test rigs, this thread sealant was applied as one of many barriers to protect the non-test threads from the NaCl Solution, but in this case with TR's 18 & 19 being tested in the dry, the thread sealant is applied to assist with sound transfer from the test rod for the AE sensor that will be attached to the coupler. Both test rods thread in easily by hand without difficulty – there is no need for tools like chain wrenches to apply extra force. Both rods achieve the required 6" of thread engagement with the installation of the test rods stopping when they hit the jacking rod end in the middle of the coupler. The correct thread engagement is verified by measurements. Then, the test rod / coupler / jacking rod assembly is pushed in several inches at each test rig so that the rods are near the final positions - this is so that the area where VGO will install strain gauges is below the handhole that they will use for access for this installation. The rod positions will be fine tuned later, after VGO is done moving the rod for strain gauge installation.

After lunch ends at 1130, the laborer does work with timber blocking for the test rigs. He first cuts 4 each 4x6's to length for the future support of the stainless steel slide plates at the north end of the test rigs. These 4x6's will need to be built up in the future with other thickness shims when the stainless steel slide plates are installed and adjusted. Then, the laborer prepares the blocking for the future support of the 300-ton jacks. He modifies previously cut 4x6 blocks from TR's 14-17. These blocks have a curved surface at the top that will cradle the jacks, but they are too short for use at TR's 18 & 19. On the bottom of these



Daily Diary Report by Bid Item

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Inspector Name Brignano, Bob

Diary #: 1212

Date: 29-Jul-2014

Tuesday

blocks, 3/4" thick plywood is attached by screws to increase their height. He modifies the 8 blocks needed to support the 4 jacks at the 2 test rigs, plus a few spare blocks in case there are any issues with any of the blocks. This work on the blocking is complete by about 1245.

After completing work on the blocking, the laborer then works on cleaning of the jacking rods. The fully threaded extensions of the jacking rods from the end plates have been clean before, but they later accumulated debris when they were installed in the test rigs and when the north end plates were installed. In a future step, nuts will need to be run down the rods to engage the end plates. The laborer uses a hand wire brush and wire wheel brush to clean the threads on these jacking rods. Cleaning both rods is complete by about 1330.

Then the laborer also cleans a portion of the TR 19 coupler with a wire wheel brush. This is where the CT-METS AE sensor will be attached, and this cleaning is so that CT-METS does not need to do much prep work in order to get a good epoxy bond for the AE sensor that will be applied soon (tentatively tomorrow). This cleaning is only done today at TR 19 and still needs to be done tomorrow at TR 18.

Then the laborer starts work to clean the bearing surfaces of the spherical washers that will be used on the jacking rods. The bottom flat surface that will bear against a steel plate (either the end plate or the jacking beam) and the top spherical surface that the spherical nut will bear against are being cleaned. They are cleaned with a wire wheel brush. By the end of the shift he is about half done with cleaning the 5 spherical washers (4 needed at the 2 test rigs plus a spare), and he will also need to clean the spherical bearing surfaces of the spherical nuts tomorrow.

VGO starts work on site today after traveling to the Bay Area yesterday. From VGO, Dave Van Dyke and Mattea start work on site at 0800. Later in the morning, at about 1000, Rob Rutledge arrives on site after flying to Bay Area this morning. VGO takes lunch between 1200 and 1300. VGO starts by planning the wire runs from the trailer and examining the jacking rods at the locations where the strain gauges will be added. The areas where the strain gauges will be added were previously prepared by VGO (grind and label), but there has been some minor corrosion that will require some extra prep work (more extensive sandpaper prep). At ~0900, Mattea starts installing strain gauges at TR 19. By lunch, 4 of the 8 strain gauges are installed at TR 19, but not all the QC checks and protection layers have been applied to the 4 strain gauges. By the end of the shift, 6 of the 8 strain gauges (75%) are installed at TR 19. Meanwhile, Dave and Rob set the toolbox near the test rigs and install the eDAQ at about 1100. At about 1330, Rob starts installing strain gauges at TR 18. By the end of the shift, 2 of the 8 strain gauges (25%) are installed at TR 18. Meanwhile, Dave starts work on the wire run from the VGO trailer to the eDAQ at about 1330. In the timber protection channel (previously fabricated by ABF) a power cord and network cable are added and then a cover or lid is added to the timber protection channel. VGO leaves the site at 1700.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used by the laborer at the end of the day and is on idle/standby at the test rig work area the remainder of the day. A 40kW generator – MQ Power 40 – ABF ID 002051 is on idle/standby at the test rig work area. A Hydraulic Pump for running the jacks is on idle/standby at the test rig work area. An oxyacetylene torch is on idle/standby at the test rig work area. A Kubota Cart is used by the laborer at the test rig work area, and a second Kubota Cart is used by the ironworker at the test rig work area.

Note that there is k-rail at this work area. All the remaining k-rail at the CCO 314 test rig site is State owned. There are 20 pieces of 10' bought k-rail. Only some of this k-rail is currently in a test rig setup (8 pieces installed) with the remaining k-rail at the test rig site awaiting use (8 pieces) in the new test rigs (TR's 18 & 19) or will be spare/extra k-rail (4 pieces).

To elevate k-rail and sandbags, crane mats (built from 12x12's) and timber blocking (12x12's) are used. The crane mat and 12x12's quantities are as follows:

1 each 4'x20' crane mat (1 x 80 LF)
1 each 5'x19' crane mat (1 x 95 LF)
2 each 5'x20' crane mats (2 x 100 LF)
~4x2x4 = 32 LF additional 12x12's



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Total 12x12's quantity = 407 LF

The agreed extra work with ABF is as follows:

Laborer Carlos (Pedro) Garcia - 3 hrs

Ironworker Foreman Jared Garrett - 1 hr

Kubota Carts (2 each) - 4 hrs

7kW Generator - 3 hrs

12x12 timber - 380 LF

See the attached Extra Work Order - Signed with ABF for CCO 314 work

INSPECTOR OT REMARK:

Field and Office 2 hours: ABF's shift is 0600 to 1430. VGO's shift is 0800 to 1700. I am in the field for ABF's work at times today between 0600 and 1430. I am also in the field later in the day when VGO is working. I am also assisting CT-METS and the DJV with various requested info on A354 Grade BD bolts and rods late in the day. My shift is 0600 to 1630, with the OT between 1430 and 1630.